Southern Maryland Wood Treating

EPA Region 3
Maryland
Saint Mary's County
Hollywood

EPA ID# MDD980704852

5th Congressional District

Last Update: February 2002

Other Names: None

Current Site Status

The cleanup at the Southern Maryland Wood Treating Site has been complete since January 17, 2001. The U.S. Environmental Protection Agency (EPA) and Maryland Department of Environmental (MDE) with the oversight of the US Army Corp of Engineers (USACE) excavated 270,000 tons of creosote-soaked soils and sediments and processed them by thermal desorption to remove the hazardous substances from the soil. During the Fall of 2000, the last of the clean soil (i.e., soil that was excavated and treated) was backfilled into the excavated areas. All equipment was dismantled and removed from the site in December 2000. The site was re-graded and re-vegetated with a diverse mixture of wildflowers and grains suitable for wildlife habitat. The site has been cleaned-up to residential standards. Ground water wells placed around the site have been monitored since 2000 and have continued to confirm that the cleanup was a success. Due to the success of the cleanup the site is being considered for deletion from the National Priority List (NPL).

Site Description

The Southern Maryland Wood Treating (SMWT) site is an inactive wood treating facility located in Hollywood, St. Mary's County, Maryland. From 1965 until 1978, 25 acres of the 96-acre property were utilized for wood treatment operations using creosote and pentachlorophenol (PCP). Process waste water was piped into six unlined lagoons located near the process buildings. The soil and ground water in this area of the site and in an adjacent stream, consequently, became contaminated with the wood treating chemicals. In 1982, the State of Maryland ordered the site owner to clean up the site by spraying water from the lagoons on a wooded portion of the site, and by land-farming the lagoon sludge on a 3-acre field previously used to store untreated wood. The land-farming was done improperly, causing shallow soil in that section of the site to be highly contaminated. Other areas of the site were contaminated by drippings from treated wood, or by spills of wood treating chemicals. The site operators abandoned the site in the early 1980's leaving behind the process equipment, deteriorating tanks of creosote and PCP, and all the contaminated environmental media. The land immediately adjacent to the SMWT site is mainly forest and fields. Residents rely on groundwater as a source of potable water; however, residential wells in the site vicinity have not been found to be contaminated. Monitoring wells at the perimeter of the site were used to delineate the extent of contamination in the shallow aquifer and showed that contamination remained in the vicinity of the site property. The deep aquifer, which is the source of local drinking water, was never contaminated by the site because of a clay layer which acted as a barrier between the contaminated shallow aquifer and the deep aquifer.

Site Responsibility

Cleanup of this site is the responsibility of Federal and State governments.

NPL Listing History

The site was proposed to the National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites requiring long term remedial action on October 15, 1984. The site was formally added to the list June 10, 1986, making it eligible for Federal cleanup funds.

Threats and Contaminants

As a result of the thermal desorption process, soil on the site now meets residential standards. Prior to cleanup, the shallow on-site ground water in the former lagoon area was contaminated with volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs), which are constituents of creosote and PCP, wood-treatment compounds. Shallow soil in the land farming area and deep soil in the former lagoon area were also highly contaminated. Prior to site cleanup, the primary threats to the public included long-term exposure to shallow soil, and ingestion of shallow ground water from the former lagoon area. These threats are no longer present.

Contaminant descriptions and associated risk factors are available on the Agency for Toxic Substance and Disease Registry, an arm of the CDC, web site at http://www.atsdr.cdc.gov/hazdat.html EXIT disclaimer

Cleanup Progress

In 1988, EPA selected a remedy to address all of the contamination that remained after the operators abandoned the site. The first phase of the cleanup involved installation of a sub-surface barrier wall around the most highly contaminated part of the site. The barrier wall, installed as an interim measure to prevent offsite migration of contaminated ground water was completed in 1990.

Originally, the second phase of the cleanup called for onsite incineration of the wastes and contaminated soil and sediments. The incineration remedy drew strong opposition from the community due to perceived health concerns and from the State due to high estimated costs. With intensive involvement from the community and the State, EPA reevaluated cleanup alternatives and selected a new, mutually acceptable cleanup technology, thermal desorption, in a September 1995 Record of Decision (ROD), EPA’s document for the cleanup decision.

While reevaluating the remedy, EPA conducted an emergency removal action to address the most immediate threats at the site. This removal action included offsite disposal of wood-treating chemicals and highly contaminated soil contained in several tanks, offsite

disposal of hundreds of 55 gallon drums of investigation-derived waste, and demolition of onsite buildings in danger of collapse. During the Spring of 1995, a water treatment system was constructed to removed contaminants from storm water and surface water before it was discharged to the adjacent stream. The treatment plant operated through the Fall of 2000 when the contaminated soil cleanup was completed, making water treatment unnecessary.

In accordance with the 1995 ROD, 270,000 tons of creosote-soaked soil were excavated and processed in thermal desorption units to remove the hazardous substances and leave clean soil. The desorbers became operational in June 1998 and treated contaminated soil on a 24-hour-per-day basis. They operated through early October 2000 when the soil treatment project was completed. The process worked by using heat to drive the contaminants into the air stream. The air stream was then cooled to condense and capture the contaminants, and the clean soil was left behind.

In addition to the water treatment system constructed in 1995, a second and larger water treatment system was constructed onsite, in 1997 and 1998, to treat the contaminated condensate that was generated by the thermal desorption process. During the Fall of 2000, the last of the clean soil (i.e., treated soil) was backfilled into the excavated areas, the site was re-graded and re-vegetated with a diverse mixture of wildflowers and grains suitable for wildlife habitat. The site has now been cleaned to residential standards. The equipment that was used to treat the soils was decontaminated, dismantled and removed from the site in late December 2000. Water Treatment Plant No. 2 was also dismantled and removed within this timeframe. Ground water wells placed around the site have been monitored since 2000 and have continued to confirm that the cleanup was a success. Monitoring will continue until the site is deleted from the National Priority List (NPL).

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The detailed Administrative Record can be examined at the following location:

St. Mary's County Memorial Library
Route 245
Leonardtown, MD 20650
301-475-2846